

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

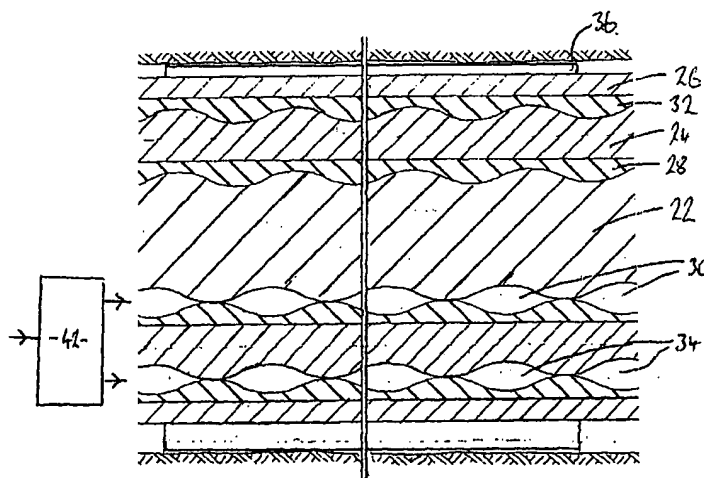
PCT

(10) International Publication Number
WO 2004/113664 A1

- (51) International Patent Classification⁷: **E21B 7/06**, 17/10, 4/02
- (21) International Application Number:
PCT/GB2003/002698
- (22) International Filing Date: 23 June 2003 (23.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except CA, FR, US):
SCHLUMBERGER HOLDINGS LIMITED [—/—];
P.O. Box 71, Craigmuir Chambers, Road Twon, Tortola
(VG).
- (71) Applicant (for CA only): **SCHLUMBERGER CANADA LIMITED** [CA/CA]; 525 - 3rd Avenue S.W., Calgary, Alberta T2P 0G4 (CA).
- (71) Applicant (for FR only): **SERVICES PETROLIERS SCHLUMBERGER** [FR/FR]; 42, rue Saint-Dominique, F-75340 Paris Cedex 07 (FR).
- (72) Inventor; and
(75) Inventor/Applicant (for US only): **DOWNTON, Geoff** [GB/GB]; 2 Ricardo Road, Minchinhampton, Gloucestershire GL6 9BY (GB).
- (74) Agent: **BAILEY, Richard, Alan**; Marks & Clerk, 27 Imperial Square, Cheltenham GL50 1RQ (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: INNER AND OUTER MOTOR WITH ECCENTRIC STABILIZER



(57) Abstract: A downhole motor arrangement for a directional drilling comprises a first motor component (22), a second motor component (24) encircling at least part of the first motor component (22), and a third motor component (26) encircling at least part of the second motor component (24), the first and second motor components (22, 24) having surfaces associated therewith adapted to define isolated cavities, the application of fluid under pressure thereto causing relative rotation between the first and second motor components (22, 24), the second and third motor components (24, 26) having surfaces associated therewith adapted to define isolated cavities, the application of fluid under pressure thereto causing relative rotation between the second and third motor components (24, 26).

WO 2004/113664 A1



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.